Groundwater Rise Hazard Map for the SF Bay Area

Phase II

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Lead Submitter

North Bay Watershed Assoc.

Fiduciary responsibility, contracting authority

Partners

SFEI - Aquatic Science Center

Project management, GIS quality control, software development

Pathways Climate Institute

GIS data development, messaging lead

In-Kind Support

Solano County RCD

Bay Area Water Board

Bay Conservation and Development Commission

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Problem statement: Climate Adaptation Plans currently fail to account for the hazards presented by groundwater rise -- eg.

- Damage buried infrastructure
- Flooding below grade structures
- Mobilize contaminants

Proposed solution: Develop information assets to inform planning efforts in all nine Bay Area counties

- Shallow groundwater maps that consider the response to eight sea-level rise scenarios
- Adaptation strategies
- Bay Shoreline Flood Explorer enhancements

Funded by a California Resilience Challenge grant, the three project partners, in collaboration with four cities and four counties have mapped current groundwater levels and projecting scenarios for groundwater rise in Alameda, San Mateo, San Francisco, and Marin Counties.

Proposed is a second phase of the project that will address the missing counties by mapping those geographies, while adding the groundwater rise data to the Adapting to Rising Tides Bay Shoreline Flood Explorer.

Phase I:

Four Bay Area Counties: Alameda, San Mateo, San Francisco, Marin

Four Bay Area Cities: Alameda, Albany, Emeryville, Berkeley

Phase II (proposed):

Four Bay Area Counties: Sonoma, Solano, Napa, Santa Clara

Key Community-Based Organizational partners: TBD

Phase II Tasks:

- Complete nearshore groundwater maps for Sonoma, Solano, Napa, Santa Clara counties
- Complete groundwater rise scenarios for Sonoma, Solano, Napa, Santa Clara counties
- Craft messaging for communities directly affected by groundwater rise
- Prepare information and data for integration into the Adapting to Rising Tides Bay Shoreline Flood Explorer